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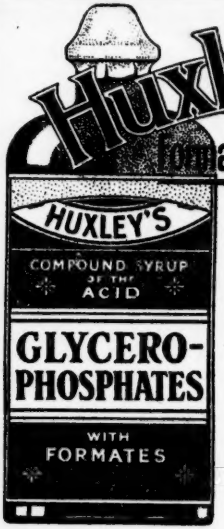

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"Scire est nescire, nisi id me
Scire alius sciret."

JUNE, 1920.

AN OPERATION FOR THE CURE OF PROLAPSE AND CYSTOCELE.

BY

WALTER C. SWAYNE, M.D., B.S.,

Professor of Obstetrics in the University of Bristol; Obstetric Physician to the Bristol Royal Infirmary.

PROLAPSE and cystocele may occur either as separate entities, or both may be found in the same patient. The operative procedures described are applicable to either condition separately, to both when they occur together, or, in principle, but with certain modifications in detail, to rectocele.

The object of the procedure is to reconstruct the original anatomical relations of the parts concerned, or so to alter the anatomical relations existing as the result of the deformity or displacement that the physical effect of the original natural relations is reproduced. It is necessary before describing the operative procedures to consider for a moment the normal anatomy of the parts concerned and the alterations therein which lead to the production of the deformities mentioned.

It is unnecessary to describe in anatomical detail the construction of the upper part of the pelvic diaphragm beyond making the following statements :—

1. The levator ani with its fascial sheath (the sides of which are formed by the anal and pelvic fascial planes) is so attached and at such a level that in the erect posture it can have no possible function as a support of the uterus.

2. It does enter into the perineum, and at the point where its fibres divaricate to permit of the passage of the vagina, it can prevent the egress from the latter organ of any solid body which may be within it, *e.g.* a pessary.

3. The bases of the broad ligaments contain a comparatively large mass of connective tissue, the fibres of which follow the course of the uterine artery from the parietes to the uterus.

4. The floor of the bladder is separated from the anterior wall of the vagina by an interval which contains a felt-work of connective tissue (which, by the way, is exactly described by one of the meanings of the word *fascia*, a mat).

It should be stated with regard to 3 and 4 that the connective tissue elements described do *not* form either definite dissectible bands, such as the ordinary ligaments of the joints, or a definite dissectible plane, such as the *fascia lata* of the thigh, but a structure which may perhaps be likened to a soft woolly triangular bell-rope in the one case and a felted mat in the other.

The structures in 3 and 4 are more or less continuous, so that the connective tissue of this part of the pelvic floor would, if separated from the other soft parts (the uterus only being left *in situ*), resemble in outline the moon half obscured by a circular disc of more than her own diameter with an indentation in the centre of its intersecting arc.

The connective tissue (the two portions of which found

between the layers of the broad ligaments at their bases accompanying the uterine vessels from their origin to the uterus and described as the ligaments of Patterson) *is* the actual support both of the uterus and the base of the bladder. The uterus is retained at its proper level in the pelvis by the so-called ligaments of Patterson, and the primary cause of prolapse of the uterus is, in the majority of cases, the stretching of these structures by parturition, while cystocele is due to a divarication, or one might say a hernial orifice in the felt-work of connective tissue between the bladder and the vaginal wall.

Basing the operative procedure on these facts, it has been my practice for the last seventeen years to deal with cases of prolapse and cystocele as follows :—

The cervix uteri is first grasped with vulsellum forceps and drawn outside the vaginal outlet.

A median incision through the vaginal mucous membrane is carried from a point about three-quarters of an inch behind the urethral orifice to the mid-point of the reflection of the vaginal mucous membrane from the cervix. The vaginal mucous membrane is then incised on each side of the cervix to a point just behind the mesial plane of the uterus, the incisions when completed forming a " T " with a curved top. (Fig. 1.)

Two lateral flaps are then dissected up roughly triangular in shape and attached by their longer sides.

The bladder is separated from the uterus as high as may be necessary to expose the bases of the broad ligaments, and the dissection carried onwards on each side until sufficient space is obtained. (Fig. 2.)

At this stage, if there is a well-marked cystocele, the bladder will be seen projecting through the hernial orifice in the felt-work connective tissue as a soft puckered mass. (Fig. 3.)

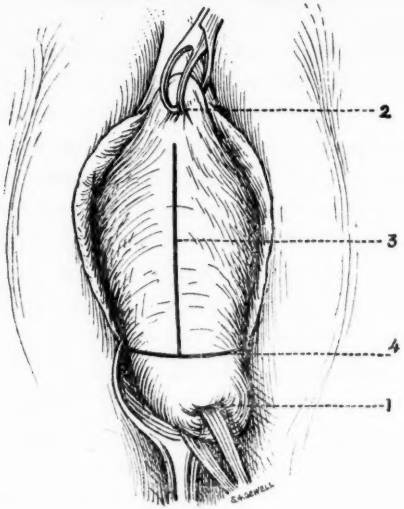

FIG. 1.

1. Volsellum on cervix. 2. Tenaculum grasping vaginal mucous membrane. 3. Longitudinal incision in vaginal wall. 4. Transverse incision round cervix.

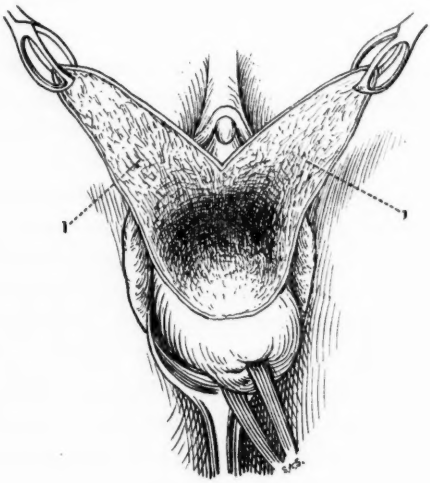

FIG. 2.

1 and 2. Flaps raised and held by tenacula.

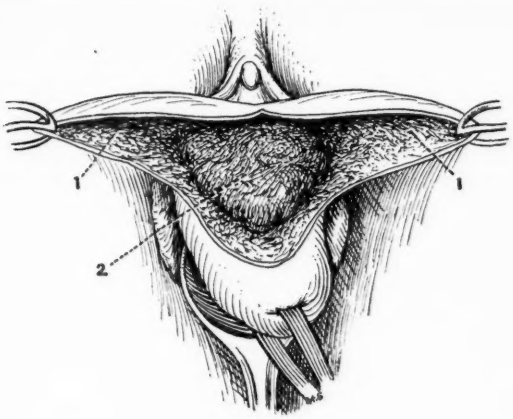

FIG. 3.

1, 1. Flaps as before. 2. Base of bladder protruding.

With a fully curved Hagedorn's needle, a thick catgut suture is passed through the base of the broad ligament on each side, usually from above downwards in each case. (Fig. 4.)

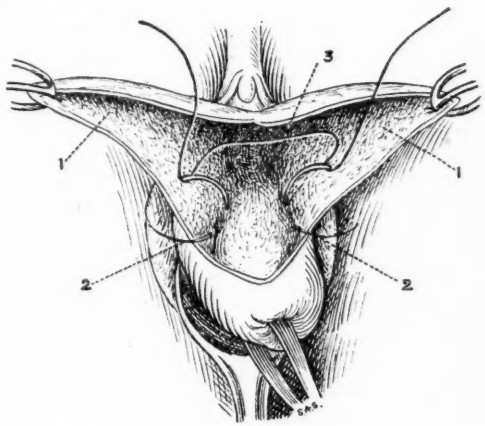

FIG. 4.

1, 1. Flaps as before. 2, 2. Needles carry suture through bases of broad ligaments. 3. Suture.

This suture is then firmly tied, with the result that the cervix is pushed backwards and upwards, and two folds of connective tissue can be seen running from just outside the tied suture to the back of the symphysis forming a well-marked triangle with its base at the cervix. These folds are then sewn together by means of a continuous suture of medium catgut, the bladder being pressed upwards with a flat retractor. (Fig. 5.) This suture can be reinforced if necessary by a second over it. The vaginal flaps are now brought together. After the ends have been cut off

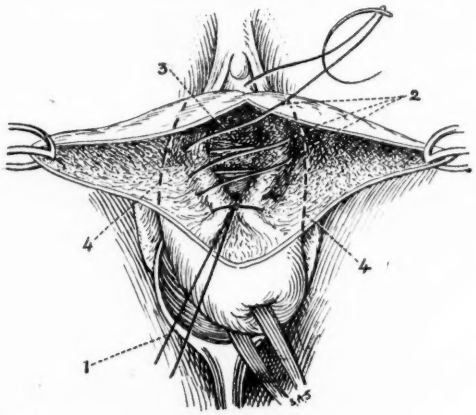

FIG. 5.

1. Suture in bases of broad ligaments tied. 2. Running suture bringing folds of fibrous tissue together. 3. Base of bladder now pushed up. 4. Dotted lines marking edge of redundant flaps to be removed.

the deep sutures and any redundant portions cut away with scissors, the flaps are sewn together with either interrupted or continuous catgut sutures. (Fig. 6.)

The cervix may be amputated or the perineum repaired as the necessities of the case may demand; in the case of the former between the first and second steps of the procedure described, or on the completion of the procedure in the case of the latter.

This operation should not be performed on a woman likely to become pregnant, as parturition will almost certainly reproduce the original injury. Care must also be taken to avoid passing a suture round a ureter.

So far I have only had one failure to cure the original disability, and that was due to parturition at an unusually late age.

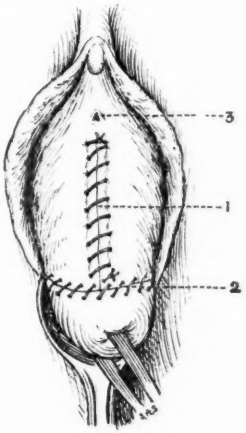

FIG. 6.

1. Longitudinal incision sutured. 2. Transverse incision sutured. 3. Urethral orifice.

Since I wrote the above an opportunity has occurred of examining after an abdominal section the conditions produced by this operation. It was found that there was a definite shelf right across the anterior half of the pelvis in front of the uterus. This shelf is produced by the tension put on the cellular connective tissue in the situations mentioned under (3) and (4).

The illustrations were sketched from life by Mr. A. Sewell.

ON THE CAUSES OF DEATH IN LOBAR PNEUMONIA.

BY

F. H. EDGEWORTH, M.A., M.D., D.Sc.,

Physician to the Bristol Royal Infirmary and Professor of Medicine in the University of Bristol.

DURING this last winter I have seen several cases of collapse occurring at the end of lobar pneumonia, and have been struck by the absence of any effective treatment. Such cases have long been known. They were described by Fagge in the words, " It now and then happens that the occurrence of the crisis is followed by great prostration and collapse from which the patient never recovers."

It seemed worth while to find out what are the characteristics of the condition and how frequently it occurs. To do so I have analysed all the cases of lobar pneumonia—from the age of 12 years upwards—which came into my wards at the Royal Infirmary during the last ten years. The cases recorded are consecutive, with the exception that all entering between October, 1918, and April, 1919, are excluded owing to the then prevalence of influenza, and to the difficulty or impossibility in some cases of distinguishing between extensive broncho-pneumonia and lobar pneumonia. The cases numbered 135, and the average age of the patients was 29 years. Seventeen died. This gives a mortality of 12.5 per cent.—about 8 per cent. less than is stated, in Osler, to be the rule for hospital patients of this age. The average age of those who died was 40 years, and no patient died under the age of 20. This is in accordance with the general law that the mortality increases with years.

As regards general treatment. Once the diagnosis was certain the patient was disturbed as little as possible, *e.g.* was not raised in bed for daily examination of the back. He was allowed to be in bed with the number of pillows which gave the greatest comfort. If, as often happened, the sputum was so viscid that expectoration was difficult, citrate of sodium, in 20 or 30 grain doses, was given every four hours until it was easy to bring up. It was found that larger doses than this were apt to produce diarrhœa. If this occurred it was checked by chloride or lactate of calcium. Opium was useless. If the pulse rose to 120 per minute a hypodermic injection was given every two hours, alternately of ♏3 of Liq. Strych. hydrochlor. and gr. i. of camphor dissolved in Ol. Olivæ. This appeared to be distinctly useful, though it did not raise the blood-pressure.

Pleural effusion occurred in four cases. In two pus was found—these were operated on and drained. In two cases the fluid withdrawn by an exploring syringe was cloudy, and was aspirated, ℥x. in one case, ℥xx. in the other. All four recovered.

The causes of death were as follows. Of one (in 1916) I have no notes recorded. One died on the thirteenth day from gangrene of the right lower lobe. One died on the twenty-first day, with a persistent consolidation of the left lower lobe, irregular fever, and expectoration of a sputum containing pneumococci only. One died, quite suddenly, on the sixth day, of no apparent cause during life or explanation post-mortem. One died from pericarditis. Seven died, feverish, cyanosed and dyspnœic, at various dates from the seventh day onwards. Six of these showed, post-mortem, hepatisation of either both lower lobes, or of the whole of both lungs. They had been treated by the administration of oxygen five minutes every quarter of an hour. Possibly, but I do not feel sure, the persistent administration of

oxygen by Haldane's apparatus might—if we had had it then—have saved these patients.

In one case, aged 50, with consolidation of the right lower lobe, the temperature was persistently low, about 101°, and death occurred on the seventh day. He showed no response to the infection.

This leaves four cases—about 3 per cent.—in which death occurred apparently as the result of a persistent fall in the blood-pressure. In three this happened during the fever, in one just when the temperature had fallen by crisis to the normal. The cases, then, described by Fagge do not form, on the average, more than 1 per cent. of the total.

In general the systolic blood-pressure in cases of lobar pneumonia is about 90 mm. Hg. In these cases, just described, it falls during the course of a few hours to 60 mm., and then death occurs. There does not appear to be any detectable difference between the phenomena in those patients in whom the temperature is still high—103° or over—and those in whom it has just fallen to normal. In both the cause of death appears directly attributable to the fall in the blood-pressure, so that the circulation is no longer carried on. The cause of this fall is doubtful—whether due to a failure of blood-pressure-raising hormones such as those of the pituitary and suprarenal bodies, or to a general poisoning of the muscle-fibres of the cardio-vascular apparatus. There is, as far as I know, no direct evidence on the matter.

The practical question is how to counteract this dangerous fall in blood-pressure. Strychnine, digitalis, and camphor appear to be useless. My experience with adrenalin hydrochloride has been unfortunate. In two cases (treated subsequently to the end of last year and so not in the above statistics) ♏5 of 1 in 1000 strength every quarter of an hour failed to raise the blood-pressure. Possibly the dose was

insufficient. In any case, however, physiological experiments show that the continual administration of adrenalin hydrochloride will not keep the blood-pressure high. Tyramine acts better. In one case of pneumonia I found that gr. $\frac{1}{3}$ injected hypodermically raised the blood-pressure from 80 to 105 mm. Hg. within two hours, and its administration every four hours kept the blood-pressure up. On the other hand, in two cases, seen for the first time at the end of the crisis, with a fallen blood-pressure—as estimated by the finger—tyramine failed to prevent death. The drug thus seems useful if used directly the blood-pressure begins to fall. If this has already fallen to a dangerous point, no treatment I know of will prevent a fatal termination.

A CASE OF ERYTHRÆMIA OR SPLENIC POLYCYTHÆMIA.[1]

BY

G. PARKER, M.D. Cantab.,

Physician to the Bristol General Hospital.

THIS is an uncommon disease first described by Vaquez of Paris in 1892, which has attracted a good deal of interest from the light it throws on the physiology of the circulation and upon the origin of the primary anæmias. Cases were described by Cabot, Osler, Saundby, Russell, Blumenthal, and others, so that L. E. J. Mackay was able to collect forty by 1907, and Parkes Weber wrote an admirable digest of the whole subject in 1910. It corresponds to what was vaguely described in the past as plethora, when, as the

[1] Reported at a meeting of the Medico-Chirurgical Society, April 14th, 1920.

popular phrase ran, all the patient's food turns to blood, the opposite, in fact, to anæmia.

Now polycythæmia exists when the number of red cells is above the normal average. It may be relative, as in cholera, where the water is drained off, or absolute when the erythrocytes and the whole mass of the blood is increased. Secondary forms of the latter occur both in men and animals at high altitudes, such as mountain plateaux, where an increase of erythrocytes of the mass of the blood are required to compensate for the deficiency of oxygen. They are found, too, in some cardiac and pulmonary diseases, notably in congenital heart cases, and in some forms of poisoning, *e.g.* phosphorus, CO., sulphonal, and acetanilide, where the oxygen capacity of the cells is low. With certain toxins which usually cause anæmia the reaction of the organism may cause polycythæmia, as occasionally in syphilis, malaria, tuberculosis, and paroxysmal hæmoglobinuria. Finally, it may occur in portal congestion, osteitis deformans, intermittent claudication, and some forms of gangrene.

The true primary polycythæmia or erythræmia has no known cause, resembling in this the primary anæmias, but in all the absolute polycythæmias there is an increased activity of the bone marrow, even nucleated, *i.e.* immature, erythrocytes may be found, and much of the marrow which is normally yellow will be red, showing the part it takes in cell formation. Thus erythræmia is marked by persistent absolute increase of the mass of the blood and erythrocytes, due to abnormal activity of the marrow. The erythrocytes may run up to even 11 or 13 millions, the hæmoglobin to 200, and a citrated tube of blood may show 9/10ths of its volume composed of red cells. The viscosity is raised and the mass of blood in the body may be two or three times the normal. There is usually cyanosis of the skin and

fauces, and in a great proportion of the cases a hard, large spleen. The blood-pressure is often high, and urobilin and albumen may be present.

The details of my patient's condition are as follows :—

Mrs. S., aged 65, the mother of eleven children, was admitted to the Bristol General Hospital on February 13th, 1920, complaining of an abdominal swelling which caused some discomfort and breathlessness in going upstairs. It had been noticed for eighteen months. She has not been abroad, but underwent some mental trouble during the war. There had been no previous illness, except winter cough and bronchitis and some degree of constipation and flatulence. There had been no vomiting, hæmatemesis or other bleeding. The menopause occurred fifteen years ago, but for eighteen months attacks of flushing and giddiness were troublesome at times. She looked well and could not be called cyanotic, but had a fair amount of colour and the tongue was slightly dusky. The optic discs were normal. The urine once showed a trace of albumen, sp. gr. 1018, no sugar, a deposit of urates, no casts, no absorption bands of urobilin. There was nothing abnormal in the chest. The apex of the heart was in the 5th space, and internal to nipple-line, impulse not forcible, sounds and area of dulness normal. Blood-pressure=135, systolic. X-ray screen showed heart, aorta and lungs normal. The spleen was hard, movable, and enlarged, extending 2 inches below the umbilicus. The blood (March 29th, 1920) showed erythrocytes, 7 millions; hæmoglobin, 110; index, 0.89, red cells of good shape and staining reaction, one nucleated red cell seen; leucocytes, 4560 per c.m.; polymorphocytes, 68 per cent.; lymphocytes, 5.5 per cent.; large hyalines, 8 per cent.; transitional, 16.5 per cent.; eosinophiles, 1 per cent. I am not able to give the measure of the total volume of the blood or of its viscosity, but as I have said these are generally increased, and the work of the heart added to correspondingly.

Comparing her condition with that of other cases, while the condition is well marked, she is fortunate in not having severe symptoms at present. Thus there is little pigmentation of the face and hands. The strain on the heart from circulating a huge mass of blood with so many corpuscles is at present slight. She has a comparatively small increase of red cells compared with the 11 or 13 millions occasionally seen. She has no high blood-pressure or hemorrhages.

The prognosis is fair, and there may be good health for years, but later on ascites, cardiac failure and hemorrhages may be looked for.

Treatment by X-rays has been suggested, but few if any successes are reported. Saline purges are useful, and later on, when needed, repeated venesection and low diet will be indicated. Splenectomy appears to be harmful.

As to the causes of this condition, there is an excessive activity of the blood cell formation by the bone marrow, and we are reminded of the parallel case of the leucocythæmias, where there is an abnormal formation of white cells. Blumenthal, indeed, reported an instance where the two conditions were present, namely an excess of erythrocytes and of myelocytes. There is nothing suggesting such a state in my patient except the slight excess of large hyaline cells.

Various theories of the cause of the error of erythrocyte formation have been put forward, *e.g.* a reversion to the fœtal state or a neoplasm of the blood. Again, erythræmia has been ascribed to toxæmia, but no evidence for this has been forthcoming, or to the effects of obstructed circulation, though careful examinations have been made. The disease undoubtedly impedes the circulation, but is not caused by it as Lommel once thought. Nor is it due to an increased or prolonged life of the corpuscles so far as hæmolytic and other tests have shown. It is pretty clearly not due to diminished oxygen capacity of the blood such as occurs in CO. and other forms of poisoning. In short, we can only say that erythræmia is a disease of the bone marrow, but why this abnormal formation of red-blood cells takes place there is at present nothing whatever to show, though a similar process can be brought about in healthy persons by various poisons or by living at high altitudes.

THE EFFECTS OF THE WAR ON THE MENTAL CONDITION OF THE CITIZENS OF BRISTOL.

BY

R. H. NORGATE, M.R.C.S., L.R.C.P.,

Medical Superintendent Poor Law Infirmaries, Bristol.

ALTHOUGH the Powers that be prevented me from, in Tisdall's words—

> "Wading through mud, and being spattered with blood,
> And living a week on three mice and a spud,"

yet they gave me the opportunity of being a spectator of one of the side-shows in that terrible drama of war—its effects on the minds of many of the citizens of Bristol. I have been a spectator with a dual personality: (1) as a medical man; (2) as a man trying to fathom the causes of their mental breakdown, and to record the effects of this struggle upon them.

The causes have been many: a victory, a reverse, trench warfare, stalemate, sudden social upheavals, rising of prices, air shocks, atrocities, periods of long waiting for news, lack of nourishment. In conclusion, the very slow return to what we cannot yet call the normal conditions, has left a sad jetsam of permanently disordered minds which will take years to collect, and a flotsam of shattered fragments tossed on a world which has no further use for them.

This paper deals with the mental cases under my care during the war at Stapleton and Eastville Institutions, those just before the outbreak of war, and those for some months after peace was signed. Yet this is no final conclusion, for

nearly every day I am admitting cases whose mental breakdown is due directly or indirectly to the war.

In order to simplify my figures, I take from Lady Day, 1914, to Lady Day, 1920. Previous to the war, for some years past, there have been about 500 chronic lunatics in our mental wards. On March 25th, 1915, the Asylum was closed, and became Beaufort Hospital, and all the new cases were sent to me for observation at Stapleton, where special wards were set apart for their reception and treatment. Cases urgently requiring asylum treatment had to be sent to a series of asylums, eight in number, in the south-west, from Wells, the nearest, as far as Dorchester and Bodmin. It required careful consideration to send a very violent case as far as Bodmin, or even a very weak suicidal case by road to Wells. In addition, the police sent us all cases "found wandering." Patients were admitted at any time, night or day. But with the willing help of good and bright attendants, nearly all of whom had had asylum experience, we were able to keep the large majority of the cases, and especially the border-line cases. We eventually sent home "greatly improved in mind and body" a very large number of persons who were saved the anxieties and stigma of an asylum, and were able to be visited frequently by their friends or relations in Bristol. These wards were treated as mental wards of the hospital, and the inmates were treated as "sane persons" with reservations, ill in their minds. They responded rapidly to treatment, and, what was better, tried to influence others to improve also. This has made me confident that the asylum is not the place for border-line cases, and that every hospital should have wards set apart for this special purpose.

Pre-war Excitement.—It is of interest to notice that there was a great wave of warlike excitement in the world in the few months before the War. There was war in Mexico, almost

civil war in Ireland, and the great suffragette rebellion, which led some few of them to step over the border-line of common sense and risk the loss of the respect which we owe to woman.

Outbreak of War.—Soon after the outbreak three events occurred which will always be present to my mind. (1) I saw the great fleet at anchor off Spithead. (2) I travelled up from Swansea to Bristol with the foreign reservists going home to join up. (3) I witnessed the departure of the Artillery from Whiteladies Road, in which in the old days I was a gunner in No. 6 Battery.

The effects of these three sights on my mind were strange. (1) Gave a feeling of absolute safety, a placid contentment, a "stuporous dementia" typically English. (2) A scene of maniacal excitement—cheering, shouting, flag-waving, hysterical outburst of Southern Europe—scenes repeated at every station on the line—followed later by intense melancholy when thoughts of home and family passed as visions across the mind—the brave behaviour of the mothers, the wives and the sweethearts—women at their best. (3) The deep silence, broken by the rumbling of the gun-limbers, the first view of modern engines of war. The solemn procession from the Drill Ground going forward "to some corner of a foreign field."

Whilst such scenes were in progress it was only natural that men, women, and children were affected somewhat differently. A wave of enthusiasm spread over the children of Bristol. A perpetual pantomime was being played for their special benefit all day long. School was out of the question, lessons were "nah poo," and battles were fought at every street corner. Sorrow and mental depression had begun to take the place of pride and excitement amongst the women, which was promptly checked by the suggestion of a food famine. Men were differently affected, and could be divided into three classes. (1) Those who foresaw what the

struggle meant and what it might lead to, set their teeth and stood firm. (2) Those who looked upon it much in the light of a cup tie. (3) Those who at once began to take on a deep sense of injury against the Germans, and all foreigners—they hunted for spies, saw visions at night, and heard sounds of gun-fire, etc. These were people whose mental balance was already beginning to be shaky.

Statistics.—In my mental wards on March 25th, 1914, there were 546 certified lunatics, and during the six years 2,305 new patients were sent to me for mental observation.

	Male.	*Female.*
Acute mania with delusions	460	519
Acute melancholia with delusions	77	226
Alcoholic mania	55	37
Epileptic mania	56	44
Puerperal mania	—	16
Erotomania	—	23
General paralysis	51	10
Simple dementia	64	46
Senile dementia	213	224
Mental deficients	72	96
War cases	306	335
Sent to asylum	226	262
Kleptomania	—	2
Shell-shock	24	—
Pneumonia mania	5	—
Not insane	2	—
Drug-takers	1	1
Myxœdema	1	4
Torpedoed cases	3	—
Foreigners	5	6
Deserters	3	—
Suicides	2	—
War nurses	—	1

I find, by the courtesy of Dr. Blachford, that 172 persons were sent to the Asylum in the first year, 79 men and 93 women, of whom 23 men and 29 women were sent from our mental wards. The rest went direct to the Asylum after examination at the Police Court. The Asylum was then closed.

A total of 2,969 mental cases came under observation. Of these I find that 306 men and 335 women have been affected more or less by war troubles, and 226 men and 265 women have been sent to various asylums. The rest have been nursed in our mental wards.

It is interesting to note that there were only two weeks during the whole six years when there was no admission to the mental wards, July 6th and August 9th, 1919; and the highest number admitted in one week was 16 in the first week in July, 1915, following the great German attacks at Hooge and the issue of the heavy casualty lists.

The more important battles, and the huge casualty lists issued afterwards, naturally had their depressing effect; but the Parliamentary Orders affecting "the supply of men necessary for the carrying on of the war to a successful issue" encouraged the women, for everybody would be served the same. The thought of this gave them some heart, and melancholia went down.

The report of lack of munitions very properly aroused the country to a high pitch. Mania was predominant. Zeppelin and air-raids acted in a contrary manner.

The Food Orders issued in due rotation came in for a torrent of abuse, and were a potent factor in the number of cases dealt with; but the gradual elimination of articles of food was so necessary, that it seems almost unbelievable that the Food Controller was obliged to fix the price of horseflesh for human consumption.

Stapleton Institution.—In the first place I should like to

draw attention to the patients who were already in the mental wards.

There was a rush of feeble-minded youths to abscond from the buildings in order to enlist in the army under Lord Derby's scheme. Of these one was told "they could not find a pair of boots big enough for his feet," and the majority were sent back on my representation. A few epileptics passed the doctor, and were afterwards returned.

Some old soldiers brightened up a little at first, recounted their battles, and then relapsed into their demented state.

General paralytics boasted as usual, and decorated themselves with home-made ribbons and medals.

Many of the women took a keen interest in the war, and were particularly elated if they had a relative at the front.

The war diets had a most disastrous effect upon them. Accustomed to eat practically as much as they liked, they were badly hit, lost flesh very rapidly, and suffered severely. We had repeated outbreaks of typhoid and a severe bout of dysentery Y bacillus.

Early War Strain.—There are a few points essential to remember in the early part of the War which affected the minds of the people. (1) The early lists showed casualties which were disconcerting by their numbers as compared with other wars. (2) Arrival of wounded men in Bristol. (3) The wounded men brought home bad accounts of the conditions in the trenches. (4) Effect on men who might be called up. Several who had been in the lunacy ward for alcoholism and epilepsy came at once for medical certificates. (5) Mental stability of the men examined was hardly tested. (6) Strain of training on men with a lower ratio of mental stability. (7) Men and women who had been previously insane broke down again, the delusions now assuming a warlike character.

Alcoholism.—I have listed 92 cases of alcoholic mania,

55 men and 37 women. The large majority of cases occurred in the first year. There was a remarkable diminution in 1917–1918, when Bristol went practically dry, and "the Government ale was really more a moral than a physical enjoyment."

The early days of war were responsible for some hilarity, and also for the downfall of some women. From January 1st, 1917, to April 29th, 1919, only one woman was admitted in this state needing to be certified.

Sexual Mania.—The sexual manias numbered 23 young women of varied classes, and nearly all of them had some hereditary mental history. These cases were often complicated with venereal disease, and several are likely to lapse into moral imbecility.

The greater freedom, the lax license allowed, the lack of supervision at home, and possibly the bad example set by the superior classes are responsible for this, and more particularly the eroticism in the modern films.

General Paralysis of the Insane.—61 cases, 51 men and 10 women. Early in the War German Emperors began to arrive, with large armies, fleets of aeroplanes and motor-cars, millions of money to spend—all on paper—cheques for thousands, but no small change in their pockets. His day is past and over for G.P.I.'s.

Later a new type arrived, much younger men, who had gone through some severe shock on land or sea. Some had not been out of England, but in "the air-raid" area; and others were sailors torpedoed at sea, with positive Wassermann's reaction and a history of syphilis acquired at about ten years' interval or less. The shock was too much for a brain already affected by syphilis. Their paralysis was expedited by some five to ten years.

Two young G.P.I.'s I have seen — a half-brother (a soldier) and his sister (a war worker) by the same mother,

21 and 24 years old—both gave positive Wassermann reactions and rapidly advancing symptoms.

Senile Dementia.—210 men and 224 women. Not so many as one would have expected. With better wages for the working classes, they have been enabled to keep their aged relatives at home. They have been very cantankerous, not appreciating the idea of rationing of food and coal. Margarine has been a sore trial to them. And when the man has been at the Front grandmother has been useful in the house to look after the children and tidy up a bit, especially if mother has been doing a little to add to her slender war allowance.

Mental deficiency.—In this class I have placed the idiots, the imbeciles and feeble-minded—72 males, 96 females.

With father away it was a difficulty to know what to do with the feeble-minded, who could do little or nothing to keep the home going, and very properly they were sent in for observation. It was essential to keep the girls off the streets, and the boys got into mischief with virtually no parental control.

Some of the histories are quaint. One youth on his mother's death dressed himself up in her clothes and tried to do the housework.

Many of the girls went out to service at minimum wages, had many places, wandered about at night and fell into the hands of the women patrols, and were handed over to us.

Simple Dementia.—64 men, 46 women. 20 men and 12 women dementia precox, family history in nearly every case.

When the urgent calling up of men was in force one youth was quite content to remain in bed with every comfort bestowed upon him and with the care of a hospital nurse for two years. He let his hair grow long like a woman, nursed an imaginary spinal complaint, and played his part

remarkably well. With shorn locks and a sharp application of the battery he improved, but has since relapsed in his own home.

The drill instructors weeded out these cases in the early days of training. The women's morals required careful attention.

The Delusional Manias and Melancholias. — Mania : males 460, females 519. Melancholia : males 77, females 226.

We see here a great preponderance of women melancholias.

We sometimes ask who has had to suffer most, men or women. There has been a greater strain thrown on women. I often wonder if we men really appreciate what many of these poor women went through during the War in their own homes—the strain, the anxiety, and the suffering, the racket of children, the crying of babies, the perpetual worries about food, and the quiet hours of suffering and thinking, the sleepless nights and the haunting uncertainty.

> " 'Tis they who are in their own chambers haunted,
> By thoughts that like unbidden guests intrude,
> And sit down uninvited and unwanted,
> And make a nightmare of the solitude."

They are best described in this one short sentence : " They said little, but their eyes asked questions."

At least one-third of these melancholias were suicidal.

A peculiar feature to be noticed was that these war delusional cases were never general at the same time over the whole city. The city is divided up into certain areas or districts, for each of which there is a relieving officer. For ten days or a fortnight the officers in turn would bring groups of these women to be examined. On only one occasion do I remember as many as five relieving officers bringing in cases during the same week.

The spread of the melancholias amongst women at certain periods of life is interesting. The catamenial period

was easily first, and in each decennial period beneath this diminished in frequency.

June to September, 1915, when lack of munitions, Zeppelin raids, and huge casualties were reported, and the whole of 1916 and 1917, were critical times for women.

There was a strange rest from October to December, 1915, due, I believe, to Lord Derby's scheme and calling up.

The most shocking cases of all were some of the Belgian refugees.

The delusions both in mania and melancholia have been warlike, and I find that they have closely followed the events in the War. The commonest type was persecution by Germans or foreigners, and " by the lady next door " hunting for spies. Then came gas shells and liquid gas. They imagined that gas had been introduced by their neighbours or enemies through the roof, through holes in the walls, or under the floor. There were several cases of attempted self-destruction by gas. In only one case was sulphur detected. People ran about at night nude or nearly so, and sometimes in the day, being haunted by Germans. Jumping from high windows appealed to some, not always with a view to self-destruction — aeroplanes suggested this.

There has been a great fascination for drowning by women ; and they have told me again and again (women mostly from Redcliff and Bedminster, wives of sailors and dockers) that for days they have visited the river to drown themselves, but could not summon up courage to do so, and came over to Stapleton for self-protection.

Many men and women have shut themselves up in their homes and not ventured out of doors, contenting themselves with reading the evening papers, have lost their appetites and taken next to no food, their general health has deteriorated until their brains were an easy prey to delusions

of suspicion, voices and visions of relatives killed at the Front.

The influence of the food queues acted for both good and evil. Whilst taking them out into the open air, they met others who had had recent bereavements, and their own worries were redoubled; and the long standing, poorly clad, in bad weather led to missing of meals and affected their brains prejudicially.

The religious maniacs looked upon their bereavements as a direct punishment from God for some past sin.

Many women neglected their homes and families very much, not always through intemperance, but as the result of stuporous dementia engendered by the War, and some soldiers had very sad home-comings.

The Coroner has kindly furnished me with the following particulars:—

Cases of Suicide in the City and County of Bristol.

Year.	Male.	Female.	Total.
1911	15	5	20
1912	15	4	19
1913	21	10	31
1914	14	6	20
1915	10	6	16
1916	14	7	21
1917	11	9	20
1918	11	5	16
1919	13	8	21

Puerperal melancholia, three wives of soldiers at the Front.

Comparing the state of mind of the men and women in Germany and England, Gustav Roeder states: "'Talk about your so-called atrocities which our men are said to have committed in Belgium,' they said to me, 'it would be

nothing in comparison with what our men would do in England, and we women want to be there too.' "

Epilepsy.—56 males and 44 females. These cases have been very dangerous indeed, violent, and in some cases homicidal. The War and the food question have upset them severely. They are gross eaters frequently, have strong religious instincts, these fits have been very severe and frequent, but the cases of *petit mal* which were frequently met with had occasioned many acts of violence and ill-doing, which had brought them within the hands of the Law.

Shell-shock.—This leaves me with this most important group of cases, of which I have listed 24.

We have admitted, cast off from the war hospitals and asylums, cases which have been most difficult to judge in an impartial manner.

I had one most severe case, which beggars description—a most horrible wreck, an absolute skeleton, nerves all awry. Sent back to the Front after his nerves had given way. He died suddenly whilst eating his dinner. Four cases I have returned to asylums, ordinary manias and not shell-shocks. Several I treated successfully with electricity and moral persuasion.

One well-known Welsh footballer went off suddenly when a motor taxi started with rather an unusual noise. He had been celebrating his return, and was quite well again in two days. One case broke down after a stormy voyage with scanty provisions coming home from India, and is still very dull and dense.

But I am afraid there has not been the training for work that is necessary in these cases. They remain in hospital, attended to by sympathetic nurses, until all inclination for work has disappeared from their minds. They are discharged into a field where work has to be looked for and kept, when obtained, and good work is expected for good wages. All

initiation is lost, and they gradually drift to a low ebb, are easily led, and become the associates of a low class of scoundrels, who use them as tools for a variety of evil deeds ; and when the Law holds them they make the excuse of shell-shock, or plead mental instability from decadent parents.

The asylum is not the place for this class, nor the mental wards of an institution, but a modified Borstal system under medical supervision, which should train them gradually in graduated employment, the proceeds of which should pay for their keep ; and there they should remain isolated from bad surroundings till they have seen the errors of their ways. Special hospitals built in country districts with land around should be provided for the stuporose, where with skilled medical observation they should be gradually roused from their lethargy and made useful members of the community. I would have prepared by impartial medical men a national registration card of health for every man, woman and child.

There are two points which have never been sufficiently commented upon in their relation to the War and sanity.

1. The great advantage gained to the country by allowing the former militant suffragettes to take charge of the arrangements for women workers. It allowed of a body of educated women (who might have been mischievous, and who were previously unoccupied) falling into line with " the mere man," thus calming their minds with good honest work ; and though at first they took their slips and cuttings, the result was a successful exhibition of well-thought-out plans, which meant that in the place of the rough but ready care of the orderlies we got the skill and devotion of a band of women whose memory will always be fresh in the minds of the men in all parts of the world, and whose tact and kind assistance saved many a sweetheart, wife and mother from a mental breakdown.

2. The garden allotments. Middle-aged men with sons at the Front were taught that they could do their part in providing food for their families and the State. That open-air exercise changed their view of life—their melancholias and vain regrets were passing shadows only—and it has fostered in them a pastime which has added years to their lives and proved an inestimable benefit to the country.

In conclusion, I would say that we must get these cases of war mental disorder as early as possible under treatment, and not allow them to drift day after day with their misty vision into that "no man's land," where the mind stumbles into the pitfalls of delusions and the dangers of orientation, aimlessly wandering in a fog of hallucination, exposing themselves to the cross fires of enemy and friend; and instead of building more asylums, let us erect bright, cheerful homes in the country places, where a month or two's residence in pleasant surroundings, free from care and worry, will turn their minds to better thoughts, and not subject them to those scenes so familiar in an asylum, where we see "the faculties decaying, as the tree stands stark and helpless whilst its green leaves fall."

IRRITABLE HEART.

At a discussion at the Bristol Medico-Chirurgical Society on March 10th, 1920, the subject of "irritable heart" was examined by different speakers from different points of view.

Opening the discussion with a short survey of the condition as seen in civil practice, Dr. C. F. Coombs said:—

It was during the latter part of 1918 that I became aware of an increase in the incidence of the irritable heart syndrome among the civil population.

The usual complaint is of uncomfortable sensations arising in the præcordial area. These are variously described, but the general term "palpitation" fairly includes them all. Other symptoms are shortness of breath, pain in the left chest and arm, and faintness sometimes amounting to syncope.

The palpitations in bad cases are practically continuous, but more often they are limited to attacks which are brought on by emotion or exertion, with undue readiness in the patient's own judgment. Sometimes they seem to be related to meals.

One is often told that the attacks come on when the patient is lying in bed at night. They cause less dyspnœa than one would expect, but sometimes they are accompanied by an irregular, sighing kind of breathing. If the patient has an organic lesion of the heart in addition to his bouts of palpitations, he is, of course, liable to shortness of breath in the attacks. Pain is not often severe. The patients who put pain most definitely in the foreground of their story are elderly. The faints are of an interest to be alluded to presently.

The most constant objective feature is tachycardia. This is the source of the præcordial discomfort of which the patient complains, and like it is continuous in bad cases. More often it is occasional, excited with undue ease by emotion, especially of the apprehensive type, by movement from a lying to a sitting or standing attitude, and by exertion. I give these stimuli in the order of their importance as it has appeared to me. Under these influences the pulse shoots up from 90 to 120 or even 140, and runs away at that rate even after the stimulus has been removed. In some cases periods of retardation may intrude more or less suddenly into the tachycardia, accompanied occasionally by extra-systoles. It is in these patients that faints occur. In a

case seen recently the pulse was observed to become slow during a series of fainting attacks. Sometimes retardation is a more striking feature than acceleration. A high systolic pressure is occasionally noted, but even in such cases the diastolic pressure is normal or low. In 90 per cent. of the cases I have analysed for this paper there were no signs whatever of structural disease of the heart; in those with physical signs the lesion was trivial in all but one, and in none of them was there reason to regard it as the cause of the quick pulse. The arrhythmia set up by the see-saw between acceleration and retardation proves on graphic analysis to be a disturbance of the whole heart, *i.e.* it is impressed on the heart through its nervous control and not by faults within the heart itself. The favourable course of the cases also supports the view that the syndrome has nothing to do with structural disease of the heart.

To what then is "irritable heart" due? In order to answer this question, if possible, I have analysed 50 cases seen consecutively and at such leisure as to allow of careful inquiry. 13 of these 50 patients, though seen in civil practice, had acquired their troubles as a result of military service. 9 of these were men, 4 women; their average age was 27. But considering all the 50 cases together, I find the sex incidence about equal and the average age 38. Three-fourths of the cases fell into the 3rd, 4th and 5th decades. Puberty might be suspected as causal in 4, and the menopause in a like number. Only half a dozen of the 50 were occupied in heavy manual labour.

Among my hospital patients the wives and widows of soldiers bulk largely. Physique is less important than I should have anticipated; the irritable heart of adolescence is so often associated with a tall, lanky build that I had expected to find some similar relation to be general. As a fact, only 9 of the 50 were people of particularly slim physique.

There is, however, a strong temperamental predisposition ; about half the people were, either by inheritance or personally or both, of the "high-strung," introspective cast of mind.

As to exciting causes, I inquired particularly into the incidence of infection and of stress, physical and emotional. In 32 cases there was a history of infections that bore some conceivable relation to the onset of symptoms. I have included those with a remote history of rheumatic infection in this group because much has been made of a latent myocardial weakness following rheumatic infection as a factor in the production of irritable heart. But I do not believe much in this idea. The myocardial lesions of rheumatism are relatively short-lived except in severe cases, and my series of 50 includes no severe cases of post-rheumatic heart disease. In 22 cases the time relation between the infection and the onset of symptoms was close enough to make one believe in the causality of the former, and in 14 of these the particular infection seems to have been influenza or pneumonia.

As to physical stress, not even the most generous definition of the term could find for it more than 11 examples.

Emotional strain was apparent in the histories of 36 of the patients. This is probably a low estimate, as it only includes those cases in which the facts were undeniable. The sources of emotional unrest were about equally divided between anxieties regarding the fate of relatives on war service, anxieties caused by serious illness at home, domestic discord, business worries and litigation, prolonged war service in dangerous areas, and the concealment of facts of which the patient was ashamed. All these appear to me to be varieties of protracted fear—fear of something anticipated rather than of something actually present.

Macbeth speaks of—

> "That suggestion
> Whose horrid image doth unfix my hair
> And make my seated heart knock at my ribs,
> Against the use of nature. Present fears
> Are less than horrible imaginings."

It seems, then, that two factors are of prime importance in the establishment of this syndrome, infection and emotion, both of them, be it remarked, forms of reaction on the part of the patient to unfavourable environment. My impression is that either factor may make the heart irritable without the other, but that the worst cases are those in which both are acting together.

That it is upon the nervous control of the heart that they act rather than on the heart itself is generally agreed, but as to the precise point of the controlling apparatus on which they act there is no such consensus. Indeed, books have already been written on the matter. The question is, however, no easy one. The answer can only be furnished by prolonged research. Such an investigation would be of considerable value not only for its own sake but because of the light it might throw on cognate problems.

Whatever may be the part of the nervous system upon which these injurious influences impinge, there is no doubt as to the line of treatment to be adopted, and that is to attack the cause. Any infection still persisting must be identified and treated either by direct means or by enhancing the patient's capacity for resistance. Sources of painful emotion have to be looked for, and the patient must be told that these are largely responsible for the symptoms, so that he may be induced either to put right the situation which is disturbing his mind, or if this is impossible to adapt himself with equanimity to his conditions.

Finally, the attitude of the patient to his symptoms varies widely. Many persons have a tachycardia exactly

like that of these patients without distressing themselves about it. Sometimes they understand its significance and are therefore not frightened by it; often other symptoms arising from the same source, whether physical or infective, dominate the mind and the sense of cardiac discomfort is subordinated to these. But in many the cardiac sensations excite mental disturbance amounting sometimes to a terror that serves to aggravate the tachycardia. In order to do good to such patients it is essential to explain to them the nature of the disturbance, laying stress on its harmlessness, and asking for active co-operation in a campaign against its causes, whether emotional or infective.

Dr. C. E. K. HERAPATH next treated of the same syndrome as seen among ex-service patients. He said:—

For the last two months I have seen all cases referred from Medical Referees and Pension Boards with symptoms of heart disease, and these notes are the outcome of the first 57 cases.

Of these 57 men 9 had enlarged hearts, 5 of them with murmurs indicative of aortic regurgitation, 3 of mitral stenosis and 1 of both conditions. The remaining 48 presented symptoms of irritable heart, and it is of these that I propose to speak to-night.

The history of the onset and the causation thereof was carefully gone into, and it was found that 28 cases began within two weeks of being allowed up as convalescents from definite illnesses, influenza in 7 cases, trench fever in 5, malaria in 4, rheumatic fever in 3, pneumonia, typhoid group, bronchitis and gassing in 2 each, and dysentery in 1. Four cases followed wounds and accidents. The remaining 16 patients had neither illnesses nor accidents. Of these 11 gave a definite history of losing their nerve some time before the onset of symptoms, 3 had a history of shortness of breath before enlistment, and in 2 no cause could be found. Of the

whole 48 men 27 were doing heavy work before the war, whereas 21 were in light or sedentary occupations.

In a typical case the man complains that the least exertion brings on shortness of breath, palpitation, a stabbing or shooting pain over the præcordium or sternum, occasional attacks of giddiness or actual fainting, and sweating, particularly in the hands and axillæ. He suffers from nervous symptoms, such as tremor, loss of sleep, dreaming, excitability, irritability of temper, and emotionalism. Many of them cannot go to picture theatres, as the excitement brings on palpitation and pain. The pulse-rate is 100–120 or more.

The examination is carried out with the man first standing, then he lies down on a couch. This brings the pulse-rate down about 8 beats a minute. While he is lying his blood-pressure is taken. He then gets up and does exercise (double marking time), until he feels he must stop. The pulse-rate goes up to 130–180. Then he lies down again, and the pulse is found to drop to 90–100. It is interesting to note that practically always the rate falls below what it was before exercise. Frequently it is suddenly halved, and in a certain number of cases premature contractions occur during the slow period. The examination usually shows the heart to be smaller than normal, various murmurs may be detected, and the systolic blood-pressure is high.

This is the average case with which one meets, and I shall now enlarge upon a few of these phenomena.

With reference to the size of the heart, I take the position of the maximum thrust of the apex against the chest wall as the best guide. If this be inside the mid-clavicular line there is no enlargement of the ventricles, provided the heart is not displaced as a whole. If the apex-beat be not palpable I give the patient a little exercise to strengthen the beats, and in most cases this is effectual. I do not think percussion

is a reliable index where the apex-beat cannot be felt, as lung is probably overlapping the left border of the heart, and impairment of percussion note will then not give the position of the left margin.

In these 48 cases there were 9 of enlargement of the heart, 4 with general arterial sclerosis, 2 with chronic interstitial nephritis ; 2 of them had complained of shortness of breath from childhood, and probably had an unsound myocardium when they enlisted. In one case no cause of enlargement could be found.

These cases should be looked upon as cases of " irritable heart " complicating other disease, for a large number of the patients with no enlargement have had symptoms for three or four years and 2 cases for five years ; whereas 3 of the men with enlarged hearts have had symptoms for less than eighteen months and 3 for less than two years, so that it does not seem that continuance of tachycardia causes enlargement.

The average position of the apex-beat is 3 inches from the middle line, the normal being from $3\frac{1}{2}$ to $4\frac{1}{2}$ according to the development of the chest, or rather of the man. In other words, the heart is smaller than normal ; and this is what one would expect, for a rapidly-beating heart does not have time to fill properly, and therefore does not fully relax, consequently the output per beat is small.

A diffuse apex-beat is very frequently met with ; in fact, movement of the chest wall can be seen over a large area of the præcordium. A diffuse apex-beat does not mean dilatation, although a dilated and therefore failing heart may have a diffuse apex-beat.

On auscultation a short, sharp, loud first sound is heard and usually a high-pitched second sound, though if the heart is beating very rapidly the second sound is not easily heard at the apex. A variety of murmurs may be present ; a

systolic at the apex or on either side of the sternum at the base is very common. Some occur only during inspiration, a few only during expiration. Many which are heard during both are not heard when the breath is held. Some appear in a standing position, others on lying down, some only appear when the heart is beating rapidly. Others are sometimes present and sometimes absent in the same patient over quite short intervals of time. In one case a diastolic murmur was heard over the third left costal cartilage only during expiration. Some of these murmurs are cardio-respiratory, some are hæmic, at a high pulse-rate a relative incompetency may occur, probably partly mechanical and partly protective. A murmur which never varies may be due to a lesion of a valve, or to a relative incompetency from dilation of the mitral ring, or to other causes. It is impossible in many cases to say positively that a systolic murmur is or is not due to a damaged valve. The prognosis is not affected by our ignorance so long as there is no evidence of myocardial disease.

The systolic blood-pressure is moderately high ; 48 mm. is the average of cases without enlargement. The diastolic pressure is low, giving an abnormally high pulse-pressure, usually 50–70 mm., though I have met with one case where the pulse-pressure was 100 mm. The low diastolic pressure is due, I think, to dilatation of the arterioles, inasmuch as with the higher pulse-pressures capillary pulsation and the water-hammer type of wave is met with in cases where aortic regurgitation is out of the question.

Then as to the rate. No doubt this goes up from nervousness when the patient comes into the room. But although I make a point of taking the history, getting them to talk and otherwise distracting their attention, the rate does not come down appreciably. Nor when they lie down does the tachycardia tend to quieten more than a few beats

per minute, but almost invariably after exercise and lying down the rate is the slowest since their entry into the room. On listening to the heart when the patient lies down one can appreciate the fact that the vagus is "putting the brake on," and this occurs during successive expirations. Thus the first slowing is noticed during expiration. The rate quickens during the following inspiration, but slows still further during the next expiration, and so on till the rate comes down to 90 or 100. After a longer or shorter period of slowing the rate gradually goes up again.

It would seem that while the man is up and about the vagus action is prevented, but that exercise followed immediately by rest awakes or releases the activity of the vagus centre. The same thing occurs if the patient remains standing, but not nearly to the same extent, and it takes much longer. If exercise thus ameliorates the condition it is obvious that the heart muscle is good.

I have taken several polygraph tracings of the premature contractions that occur during the slow period, and find that both auricular and ventricular premature beats may occur. These are, perhaps, due to overfilling of the ventricles during the lengthened diastole, though the increased vagal action may have something to do with it. Sudden halving of the rate, which frequently occurs, is due to the vagal action cutting out alternate stimuli at the sino-auricular node. Electro-cardiograms have always shown that the tachycardia is composed of normal beats ; that is, of orderly contractions of the whole heart initiated from the sino-auricular node.

To sum up briefly. In 39 out of 57 cases in this series we were dealing with rapidly-beating hearts which were not enlarged, and which were contracting in normal sequence from the sino-auricular node downwards. In other words, the fault does not lie in the heart itself, any more than the tachycardia of Graves's disease does. Where then does it

lie? Possibly in the nervous system. In 50 per cent. of cases one finds that with the onset of the shortness of breath the nervous system becomes upset. Sleep is disturbed, dreams of a horrible and frightening nature occur, the patient becomes irritable, loses his nerve, funks going back into the line and becomes very emotional. Unfortunately, owing to army nomenclature his case becomes diagnosed "D.A.H.," and from that day onwards believes he has heart disease. This worries him horribly, and he comes to live in a vicious circle. His nervous disturbance increases the tachycardia and the tachycardia depresses him, makes him anxious and increases the nervous strain and so on. Finally he becomes hopelessly neurasthenical or psychasthenical.

The problem in treatment is to break the vicious circle. First, after a careful examination the man must be assured that the heart is sound, that it beats quickly on exertion because the nerves leading to the heart are irritable and cause the heart to beat too quickly. Then one should point out how exercise slowed the heart and get him to devote half an hour each day to physical exercises, alternately performing an exercise till he gets short of breath and then resting and so on. He must be told that if he does this systematically he will be able to do more and more before he gets short of breath. I have seen enough improvement take place on this system during the short time I have been at the work to make me distinctly hopeful of effecting a cure in the majority of cases. Naturally any infection such as bad teeth, a suppurating ear, malarial attacks or chronic dysentery should be cleared up, as toxins absorbed into the system seem to play a large part in bringing on the syndrome, and may therefore be the means of prolonging it. Drugs do not as a rule do much good, though in the higher irritable cases bromides are useful in moderate doses.

Dr. A. G. MORRIS contributed notes on four soldiers observed at Southmead. A., B., and C. were all men who had had no service overseas. Previous to joining the army two were working in sedentary occupations as draper's assistants, the third was a different type—a farm labourer. All three were working in or near London, and on joining the army were stationed in Kent for training purposes. Their previous history showed no trace of any illness, there was no record of any source of infection either before or after they joined the army, they had been able to play football and other games, and were passed "A" into the service.

During the period of their training there was no disability, and they were able to carry out their duties with regard to full infantry training without any discomfort. For some reason, certainly not on health grounds, probably general usefulness, they were retained at their original training depot for a longer period than was usual, but at last they were transferred to a depot farther away, from which drafts were being continually sent overseas

Now this interesting thing happened, that in spite of their training in this depot being much lighter than previously it was from this period that their disability "D.A.H." and its syndrome definitely dated, and it was from this depot that they were sent into hospital and reduced in category. Up to this time they had been stationed near their homes, and had been carrying on with their full training and military duties without any physical inconvenience. Shortly after joining this latter depot each one gave the same history of palpitation, headache, dyspnœa and præcordial pain on emotion, tachycardia and collapse on the march. Here we have the mental factor at work, namely while they had been undergoing full training at one of the biggest training camps with the expectation of being drafted overseas, this prolonged detention in England so near their own homes, which they

were able to visit frequently, set up a curious psychic effect, caused by the pull of on the one hand home and family, on the other hand army life and service overseas.

This state of affairs was suddenly brought to a climax by their transference to a depot from which they were daily expecting to be sent overseas. For the remainder of their time before admission to Southmead they were employed on light duty with occasional visits to hospital.

On admission to Southmead they all showed practically the same symptoms and signs : præcordial pain, palpitation and dyspnœa on exertion, no enlargement of the heart, sounds clear and regular, no murmurs, but marked and increasing tachycardia, pulse return good. In one case conscious exertion produced pallor and extreme dyspnœic distress. Here again the strong psychic element was plainly illustrated. This particular man was told to walk twice round the hospital at a good pace, his pulse having been taken with a certain amount of ostentation before starting. He was observed through the ward windows carrying this out most conscientiously with a look of resigned misery on his face, and on arrival he was in a state of marked dyspnœa and tachycardia, and pulse about 150. This same man on another occasion, after his pulse had been taken at the usual daily time by the nurse, was told to hurry to the public-house about a quarter of a mile away to get two bottles of beer for the ward. He executed this quite quickly, and arrived back with scarcely any dyspnœa, his pulse being taken the moment he arrived in the ward before he realised what was happening, and the rate was about 90.

The fourth man, D., was an R.A.M.C. orderly stationed at a home hospital. Previously he was a clerk in the same town. He had always been healthy, in fact from time to time had done fairly heavy work in the factory. Here again we have a similar history. For eighteen months after

joining the hospital he carried out the full duties of an R.A.M.C. orderly, lifting patients and carrying stretchers without any marked physical inconvenience. Suddenly all the personnel were boarded with a view to their fitness for transference to infantry or overseas drafts. He was boarded, told "there was something wrong with his heart," and marked B 1 (obviously it was not a gross lesion). From this time his disability dates. As the three previous cases, his symptoms were palpitation, dyspnœa, pain over the heart. In spite of treatment from time to time, including one period of two months at a seaside convalescent hospital, which on his own showing made him worse, he developed more and more symptoms. In the words of a Sister at his hospital, "D. was one of the best orderlies I have had during the war until he had a medical board, after that he was utterly useless, afraid to move hand or foot and full of complaints." On admission to Southmead he had the typical anxious expression, enumeration of symptoms *ad infinitum*, extreme tachycardia on being examined, and he complained of breathlessness, palpitation and pain over the heart. The first week he was in the hospital his pulse was taken by the nurse night and morning, and never exceeded 80 standing; taken by the M.O. about 120, rising rapidly. The heart showed no enlargement, sounds clear, no murmurs, occasional extra-systoles confirmed by polygraph, exercise tolerance fairly good but extreme dyspnœa. On conscious exertion, fine tremor of hands, reflexes brisk, general mentality excitable.

Cases of a similar nature were observed at a base in France over a period of eighteen months. On reviewing the board sheets at the A.I.D.'s[1] periodic reclassification boards, it was noticed that in a large number of cases the original disability retaining men at the base as "P.B." or "P.U." was of such a kind as deformed or flat feet, hernia, poor physique,

[1] A.I.D.=Assistant Inspector of Drafts.

etc. Gradually there crept in the well-known symptoms and signs in addition to the original disability, and the diagnosis became "flat feet and D.A.H." In some cases the first disability dropped out of the diagnosis as the "D.A.H." syndrome became more pronounced, and "D.A.H." alone remained as the diagnosis. A further stage even was reached in a few cases when the symbols "D.A.H." were converted into "V.D.H." The etiology of this is not easy to define; probably the comforts, not to say luxuries of the base, weighed against the natural, almost unconscious ever-present dread of the line.

Some sports were held at a certain hospital during the above-mentioned period. The winner of the 100 yards race in fairly reasonable time was found to be classified "B3" for hernia and "D.A.H."

No reflection is intended on either the M.O.'s who boarded or the men who suffered under these all too real complaints, but there is no doubt that a very strong psychic element was present. Unfortunately, we were too ready with the diagnosis of "D.A.H," and this caused untold misery to numbers of men who found in it a confirmation of their fears, long engendered by their constantly recurring cardiac symptoms. It was by this means that so many men, to all intents and purposes healthy, have become physical wrecks, afraid to work, afraid to play, a misery to themselves and others, as is well seen on the present-day Pensions Boards.

Dr. J. A. BIRRELL read notes on four cases of **Post-influenzal tachycardia** now at the General Hospital.

1. The first patient, A. B., married woman, aged 40. Ten months ago had an influenzal attack, which was preceded by anxiety about the possibility of her husband being called up for the army, and the worry of getting food for her family. Since the illness this had developed into morbid apprehension and anxiety; physical effort caused a sense of exhaustion and there was persistent sleeplessness. *On examination* there was general tremor, especially of the tongue, nervousness, and a marked

tendency to flushing. The pulse was at first 96, but quickened remarkably during the interview, sometimes going up to 160, the woman becoming restless and turning about in bed, obviously ill at ease. However, when taken by the Sister in the ward, the rate was not usually above 100. The heart-rate was not slowed by swallowing, vagal compressions, or digitalis, nor was it accelerated by atropine. There were no physical signs of disease.

2. Showing a condition similar to the above was C. D., a married woman, aged 36. Twelve months previously she had influenza, during a period of anxiety, like A. B., about her husband being called up. Since then, in her own words, she had " worried over the smallest thing." She was conscious of cardiac quickening on the approach of her doctor, and she was unable to sleep well. Rest in bed for ten days six months ago did not bring about any improvement. *On examination* she was obviously nervous, and in a state of general tremor. The pulse-rate was 144, and the systolic blood-pressure 110. There were no signs of cardiac disease.

3. The other subjects were men. E. F., a riveter's assistant, aged 41, had influenza thirteen months before, after a period of overwork and financial worry. Since then he had been nervous, sleepless, and apprehensive and, as he says, " unable to sit down quietly to a meal." He is conscious of pulse quickening on excitement. *On examination* he was not obviously nervous or agitated, but there was slight tremor of the hands. The pulse was 100, and was not much quickened by exertion. His heart appeared free from disease.

4. G. H., aged 39, dock labourer, was overworked and worried about his wife, who was ill at home, and whom he had to nurse twelve months before examination. Then he was himself attacked by influenza. Since then, he says, " his nerves had been bad," and he had been " shaky on excitement," and he knew that hurrying would cause, as he termed it, " jumpiness," and cardiac fluttering. He had been unable to sleep well, and felt easily exhausted. *On examination* he was collected and steady in manner, but the hands and tongue were tremulous. The pulse varied in rate from 120 to 150 when at rest, rising to 200 on exertion, but there was no accompanying dyspnœa or distress, and his heart showed no signs of disease.

These four patients showed tachycardia, preceded about twelve months ago by influenza. In three instances the statement was volunteered that the illness occurred during a period of mental distress and anxiety. In the fourth this fact was readily elicited in conversation.

Prominent amongst the symptoms were nervous apprehension about small matters of everyday occurrence, sleeplessness, a feeling of exhaustion and despair, and a sensation of cardiac acceleration interpreted as a fluttering in the chest, a voluntary statement often being given about this condition on taking the pulse when first examining the patient.

Objectively these people were tremulous in the tongue and hands. The pulse was quick but regular. It was not found possible to slow the heart by vagal compression or swallowing, or by digitalis in maximal doses. So quick was it even when the subject was at rest that there was usually no marked acceleration on exertion or on the administration of atropine. All four patients were at work up to the time of examination, in the case of the two men hard manual labour. There were no abnormal physical signs detected in the heart itself, and polygrams showed that the quickening involved the whole heart.

Progress of the Medical Sciences.

MEDICINE.

Treatment of Gastric and Duodenal Ulcers.—There are now three distinct lines of treatment in cases of gastric ulcers, apart from surgical interference, each of which it is claimed produces a large proportion of cures. Friedenwald states that in his experience 72 per cent. of cases treated on the old lines of rest and very restricted diet recover. Under the Lenhartz treatment —in which a somewhat liberal diet is allowed and the patient is kept in bed only for four weeks—66 per cent. of cases recover. Of patients treated on the system elaborated by Sippey of Chicago 86 per cent. recover. Sippey considers that the main factor which prevents a gastric ulcer from healing is the presence of the hyperacid gastric juice, and his method of treatment consists of an attempt to keep the gastric hydrochloric acid neutralised by frequent feeding and the administration of large quantities of alkalies. Three ounces of a mixture of equal parts of milk and cream are given every hour from 7 a.m. to 7 p.m. After a few days soft-boiled eggs and cereals are gradually introduced, so that in ten days the patient gets an egg or three ounces of a cereal food alternately added to every other milk

feed. Other soft, palatable foods are subsequently employed, provided that they are not excitants of gastric secretion. Alkaline powders, such as magnesia and sodium bicarbonate in 10 grain doses are given between the feeds; several doses are also given at night, and if there is excessive secretion during the fasting period (7 p.m. to 7 a.m.) the stomach contents are evacuated by aspiration. Hurst, who speaks highly of this method, prefers calcium and bismuth carbonates in 10 and 30 grain doses respectively, because they act slowly and give rise to no secondary hypersecretion. He also gives half an ounce of the latter salt suspended in water two hours before the first morning feed, after which the patient lies on his right side for a time, in order to bring the salt in contact with the ulcer. He recommends evacuating the stomach contents at 11 p.m. (if more than two ounces is present), and if half a pint or more can be obtained the stomach is again emptied at 1 a.m. He also uses atropine sulphate hypodermically during the night to inhibit secretion. The treatment takes about four weeks, and after that time the alkaline powders must be continued for some months, and all substances known to excite copious gastric secretion must be avoided.

In cases where there is much vomiting Friedenwald employs Einhorn's duodenal tube. This instrument is passed into the stomach and left in position, and after an hour or two is carried by peristalsis into the duodenum. The patient is then fed every two hours through the tube with any liquid food. About three ounces are given at first, and gradually increased to nine or ten ounces at each feeding. Einhorn's tube is fitted with a special syringe, by which the food is given without disconnecting the tube. Care must be taken to keep the food at body temperature and quite liquid; the tube remains *in situ* for ten days.

Friedenwald also recommends scarlet red in addition to alkaline treatment; it is, he thinks, especially useful in cases where the patient is up and about and the ulcer not presumably acute.

Hurst applies Sippey's method to both duodenal and gastric ulcers, and also insists on the importance of eliminating all forms of sepsis—oral, appendicular or connected with the nasal sinuses.

George Hayem has employed kaolin in doses of 20 grains a good half hour before food as a substitute for sub-nitrate of bismuth. As the powder is lighter than bismuth it is important to give it time to settle on the mucus surface before food is introduced. If well washed it is practically tasteless, but if preferred may be flavoured with a little anise or peppermint. Hayem does not consider kaolin superior to bismuth, which in

the form of subnitrate prepared according to the old French codex he believes a most valuable drug. But he employs kaolin owing to the high price of bismuth salts, and owing to the difficulty of obtaining a subnitrate which is not too acid.

Surgical Treatment of Gastric Ulcer.—Friedenwald and Finney have observed better results after pyloroplasty and pylorectomy than after gastro-enterostomy, both immediate and final. The latter procedure, on account of its unsatisfactory end-results, they would employ only for malignant disease with pyloric stenosis. Hurst would limit operative interference to (1) perforated ulcer; (2) pyloric obstruction, (*a*) without symptoms of active ulceration, (*b*) with symptoms of active ulceration, if there is still well-marked stasis after ten days of Sippey's treatment; (3) organic hour-glass constriction; (4) severe recurrent cases which resist medical treatment; (5) severe recurrent hemorrhage; (6) if there is the possibility that the ulcer is becoming malignant.

The Chronic Dyspepsias of the "Gassed."—French writers during the war laid more stress on the immediate effects of poison gas on the alimentary tract than did either English or German observers. Achard noted as late effects hyperchlorhydria, chronic diarrhœa, and other digestive disturbances in a certain number of cases. The report of the Chemical Warfare Medical Committee, however, found that in cases of persistent vomiting there was hypochlorhydria with normal motility, and that the condition was undoubtedly a neurosis. Lœper found late digestive disturbances not infrequent, and most usually due to chlorine or mustard-gas, and not so often to purely lachrymatory gases (xylyl bromide, etc.). He divides the cases into two types, (1) the flatulent type, with loss of appetite, distension, ærophagy and discomfort an early syndrome; (2) the painful type, in which the symptoms occur later, and are accompanied at times with very severe pain. Intermediate cases also occur. Both hyper- and hypochlorhydria occur, the former usually being associated with a desquamative gastritis and the latter with the exudation of large numbers of lymphocytes both polynuclear and mononuclear into the stomach. But apparently this relationship is by no means invariable. Lœper considers these findings conclusive evidence of an organic lesion, and for the most part dismisses the obviously neurotic manifestations as secondary. He has seen no case of true ulceration, but in three instances found blood in the stomach contents by microscopical examination. In three cases he discovered persistent deformity of the greater curvature, and in one partial stenosis of the pylorus. Lœper had no opportunity of examining the stomach in any of his cases either at an operation or autopsy, and found his view

of the organic nature of the disturbance on the microscopical examinations of the gastric contents. His first type shows large quantities of desquamated epithelial cells in the gastric contents, his second type numerous leucocytes; these he correlates with a superficial and deep inflammatory condition respectively.

Reviews of Books.

Eugenics and Environment. By Professor C. LLOYD MORGAN, LL.D., D.Sc., F.R.S. Pp. 82. London: John Bale, Sons & Danielsson, Ltd. 1919. Price 1s. net.—In this readable little work Professor Lloyd Morgan has furnished us with a very clear *précis* of the relationship between Heredity and Race Culture. The train of thought is easy to follow from cover to cover, and is uninterrupted by statistical formulæ or technical phraseology. The author's remarks on the relative value of Nature and Nurture should give pause to those who are apt to regard Environment as capable of making good the deficits of Heredity. The vexed question of the inheritance of acquired qualities is ably dealt with in Chapter V. In this connection Professor Morgan illustrates the functions of the body cells and germ cells as analogous to the functions of the workers and the queen and drone bees in a hive; and he points out that the training of the "workers" in the brain of a mathematician, for example, may produce modifications of the tissues which we call acquired characters, but that, the workers being childless, these acquired characters cannot be transmitted in cellular filiation. We consider that this book should be in the hands of all persons who are engaged in eugenic or educational schemes.

An Index of Prognosis and End Results of Treatment. By various writers. Edited by A. RENDLE SHORT, M.D., B.S., B.Sc., F.R.C.S., 2nd Edition, pp. xi., 770. Bristol: John Wright & Sons, Ltd. 1918. Price 30s. net.—This work, like the companion volumes on Diagnosis and Treatment, has already a high and assured position in the medical world, and we heartily welcome the present edition, which has undergone far-reaching revision, and has received important additions during the war. Thus Gun-shot Wounds, Gas Gangrene, Tetanus and Septic Peritonitis have new sections allotted to them while Tropical Diseases have been rewritten by Sir Leonard Rogers.

To those who have not yet made a study of the book we may point out the extreme interest of many of the articles,

the immense number of facts accumulated as to prognosis, and the valuable comparisons as to the results of various lines of treatment. There can be no doubt as to the usefulness of the work to the practitioner. It has, however, a two-fold value. While it has been possible in a great number of diseases and injuries to show the prognosis and the results which may be expected from various lines of treatment, in others the work is a true Baconian history showing the existing gaps in our knowledge and the sections of medicine which offer a useful field for further study. Nothing more stimulating for future research can be imagined than the perusal of those chapters which define our present limited knowledge of certain disorders.

Manual of Bacteriology. By RICHARD MUIR, M.A., M.D., and JAMES RITCHIE, M.A., M.D. Seventh Edition. Pp. xxiv., 753. London: Oxford Medical Publications, 1919. Price, 16s. net.—Reiteration of the merits of a well-known text-book are superfluous, but something may be said about the changes found.

The seventh edition retains its compact form, and contains even a greater amount of reliable information than the previous edition. The form in which it is presented is difficult to assimilate. The caution of the authors so rigorously excludes untried theories, that it robs the book of interest by not showing the trend of recent thought. Cold water is thrown upon ion concentration research. All vouchsafed to the subject is a short paragraph in small print, in which the difficulties of Ph. estimations are exaggerated, and the ideas of ultrascientific refinement and impracticability suggested. Amino acids, too, are not even mentioned in the index, and there is no indication of their importance in media.

The lack of devices for guiding the attention prevents the correct impression being obtained by those commencing the study of bacteriology; for instance, students reading about streptococci (pp. 203–205) would probably miss the important factors in the differentiation of pathogenic from non-pathogenic varieties. The "organisms of war time" are treated at length, particularly the dysenteric and anærobic bacteria. Descriptions of trench fever and infective jaundice have been added. The section on influenza has not been changed much, and is disappointing.

Among other diseases the sections on actinomyces, pneumonia and poliomyelitis have been thoroughly revised, those on spirochætes and amœbæ have been enlarged.

The bibliography at the end has the great value of being an accurate and carefully selected list by recognised authorities, and the index is complete and accurate.

The high standard of work has been maintained by the publishers.

Fitting-out and Administration of a Naval Hospital Ship. By EDWARD SUTTON, Surgeon-Commander, R.N. Pp. vi., 110. Bristol: John Wright & Sons Ltd. 1918. Price 8s. net.—The book opens with a short account of the evolution of the hospital ship from its earliest inception down to the present-day type, together with useful suggestions as to future development. Next follows some account of the Geneva Convention, in so far as it touches naval warfare.

After these preliminaries an excellent account is given of the type of vessel most suitable for conversion into a hospital ship, and of the essential plant, staff, and accommodation which must be provided.

Details are given of the fitting out of the s.s. *Drina* for this purpose during the late war.

Hospital routine and administration are very fully dealt with, and many excellent methods have been devised by the author for simplifying the work, which might well be adopted in any civil hospital.

Numerous illustrative charts are given, which merit attention. Now that the war is over the book has lost much of its interest for the general medical reader.

For members of the Naval Medical Service, however, it remains a very valuable work, while those who are concerned with the administration of civil hospitals would do well to study it with a view to the adoption of some of the writer's orderly methods.

The Nervous Heart. By R. M. WILSON, Capt. R.A.M.C., and JOHN H. CARROLL, Major, M.C., U.S.A. Pp. vii., 136. London: Oxford Medical Publications. 1919. Price 6s. net.—In this little book the authors develop with enthusiasm a theory of causation of "irritable heart" as seen in soldiers. They ascribe this syndrome to the action of bacterial toxins on the vagus depressor system, rendering it hyper-excitable. The importance of the infective factor no one will deny, but it is no more independent of personal and other pre-disposing factors in this syndrome than it is in, say, tuberculosis. As to the vagus factor, the writers may or may not be right, it is impossible to judge from their book, because the evidence brought forward in support of their contention is of the slightest. The pathology of the autonomic nervous system is likely to become a fruitful field for speculation in the immediate future, and it is of the utmost importance that we should be content to explore this field by the Hippocratic plan—the methodical accumulation of solid facts.

Editorial Notes.

Amalgamation of Medical Charities.

Now that the provisional scheme for the amalgamation of the Bristol Hospitals has been considered by the Governors of the charities concerned, it need no longer be regarded as *sub judice*. The views of the Governors of the various charities have been expressed, with the result that the scheme set forward has not met with unanimous acceptance.

The attitude of the governing bodies towards the principle of co-operation or amalgamation is vastly more important than their attitude towards any provisional scheme for giving effect to amalgamation. It would have been wiser, perhaps, had the provisional scheme of the Organising Committee been submitted as an interim report to the bodies which had sent their representatives to the Organising Committee.

Objections might have been weighed, and modifications made which would have averted the possibility that a rejection of the provisional scheme would be interpreted as a refusal to consider amalgamation or co-operation on any basis. Without sacrificing essential principles, it is permissible to suggest improvements in a scheme which goes so far into detail as this one.

Whilst the Governors of the Bristol Royal Infirmary accepted the scheme in the sense of a provisional draft, and contented themselves with indicating amendments which they would press at the proper time and place, the Children's Hospital gave a conditional approval. The Eye Hospital, the Bristol Dispensary and the Orthopædic Hospital expressed a readiness to fall in with the scheme. The Eye Dispensary and the Cossham Hospital preferred to remain outside for the present.

Attitude of the General Hospital.

The Committee of the General Hospital adopted a somewhat different attitude, and were supported by their general Board of Governors. They frankly rejected, not the principle of co-operation, nor that of amalgamation, but the provisional scheme by which it was proposed to effect the amalgamation. The grounds for their action deserve close examination, and in effect we conceive the standpoint of the General Hospital Committee to be this: When a hospital presents a splendid record in its business management, in its professional skill and scientific equipment, in a word in all that goes to provide devoted care for the sick, is it to be expected that the Governors will immediately and irrevocably surrender their trust?

Spirit of Voluntary Hospitals.

Voluntary hospitals, while serving a great national need, are a combination of business and philanthropy, into which sentiment cannot and should not be denied an entrance. No one wants to check the charitable and kindly impulse which brings subscriptions to provide hospital accommodation for those who are needy and sick, needy it may often be because they are sick. No one wishes to deny to such sentiment the means of gratifying the impulse, nor to exclude such subscribers from some share in managing the institution they support.

At the same time, a new and praiseworthy spirit of mutual help and support has awakened in the ranks of organised labour. The members of Trade Unions and Friendly Societies contribute during health to the maintenance of hospitals to which they may have occasion to resort. They too claim a share in the management. The medical staffs contribute to the common upkeep their gratuitous services. All alike are actuated, we think, by the same motive, which is in a sense altruistic and in a sense self-preservative: even

on the lowest ground it is the herd-instinct working to protect the society in which we live. The objections raised to the provisional scheme cannot be lightly brushed aside. They must be met by adjustment of the scheme.

Fusion or Partnership.

Essentially the question turns on whether *amalgamation* is to involve immediate *fusion*, or whether close co-ordination and unification may, at the first offset, be experimental and in the nature of a *partnership* and capable of dissolution. It is impossible not to sympathise with the fears of Governors lest their institutions should be theirs no longer, it is impossible too not to share their fears lest the Central Council should become too bureaucratic in its constitution and methods. To ensure against the latter risk we can conceive no better safeguard than that the institutions entering into amalgamation should retain sufficient individuality to withdraw from the combine if it falls short in its usefulness.

We have not commented on the proposed recommendation that the University should be directly represented on the Central Council, because although we believe that close union between hospitals and University is mutually advantageous, the invitation to the University to co-operate can only be given by the combining hospitals if and when they decide to amalgamate.

Unquestionably the time has come for some measure of amalgamation and co-ordination of the hospital charities in Bristol. But in a matter where there is so large a basis of agreement uncompromising zeal may prove a hindrance to the cause it hopes to promote.

The Library of the Bristol Medico-Chirurgical Society.

The Library is now open daily from 9 a.m. to 7 p.m. continuously, except on Saturdays, when it closes at 1 p.m.

The Library is closed during August.

The following donations have been received since the publication of the list in March.

	June 15th, 1920.
American Medical Association (1)	1 volume.
Carey Coombs, M.D. (2)	1 ,,
D. S. Davies, M.D. (3)	2 volumes.
J. M. Fortescue-Brickdale, M.D. (4)	3 ,,
E. W. Hey Groves, M.D. (5)	8 ,,
The Medical Research Council (6)	1 volume.
E. Watson-Williams, M.B. (7)	1 ,,

THE ONE HUNDREDTH LIST OF BOOKS.

The figures in brackets refer to the figures after the names of the donors, and show by whom the volumes were presented. The books to which no such figures are attached have either been bought from the Library Fund or received through the *Journal*.

Albee, F. H.	*Orthopedic and Reconstructional Surgery* ..	1919
Austen, E. E. ..	*The House Fly: Life History, etc.*	1920
Barton, G. A. H. ..	*Backwaters of Lethe*	1920
Brown, C. F. White and W. H.	*An Atlas of Syphilis*	1920
Brown, W. L. ..	*The Sympathetic Nervous System in Disease* ..	1920
Cabot, R. C.	*Differential Diagnosis.* Vol. I. .. 4th Ed.	1919
Cerebro-Spinal Fever among the Military Forces, 1915–1919 .. (6)		1920
Collis, E. L. (Ed) ..	*The Industrial Clinic*	1920
Cruchet and R. Moulinier, R.	*Air Sickness* (Trans. by J. R. Earp) ..	1920
Cunningham, D. J.	*Manual of Practical Anatomy* (Ed. by A. Robinson), Vols. II. and III. .. 7th Ed.	1920
Fletcher, and H. McLean, C.	*The Link between the Practitioner and the Laboratory*	1920
Friel, A. R.	*Electric Ionization*	1920
Gray, H.	*Anatomy* (Ed. by R. Howden) .. 21st Ed.	1920
Green, T. H.	*Pathology and Morbid Anatomy* (Ed. by H. M. Murray) .. .. 9th Ed.	1900
Harrison, L. W. ..	*A Manual of Venereal Disease for Students* ..	1920
Hart, A. H.	*The Doctor's Manual* .. .. .. 4th Ed.	1920

Holt and J. Howland, L. E. *Diseases of Infancy and Childhood* 7th Ed. 1919
Howland, L. E. Holt and J. *Diseases of Infancy and Childhood* 7th Ed. 1919
James, S. P. .. .. *Malaria at Home and Abroad* 1920
Kenwood, H. R. .. *Public Health Laboratory Work* (*Chemistry*) 7th Ed. 1920
Lang, W. D. .. .. *British Mosquitoes* 1920
Malaria in England in 1917; *Reports on* (L.G.B.) .. .. .. (4) 1918
Masters, W. E. .. *Essentials of Tropical Medicine* 1920
McLean, C. Fletcher and H. *The Link between the Practitioner and the Laboratory* 1920
Miles, A. Thomson and A. *Operative Surgery* .. .. .. 3rd Ed. 1920
Miller, H. E. (Ed.) *Functional Nerve Disease* 1920
Morris, Sir M. .. *The Story of English Public Health* .. (3) [1919]
Moulinier, R. Cruchet and R. *Air Sickness* (Trans. by J. R. Earp) .. 1920
Owen, R. .. .. *Lectures on Comparative Anatomy.* 2 vols. 1843–46
Paton, D. N. .. .. *Essentials of Human Physiology* .. 5th Ed. 1920
Quain, R. .. .. *Clinical Lectures* 1884
Saberton, C. .. .. *Diathermy in Medical and Surgical Practice* .. 1920
Schuster, E. .. .. *Eugenics* .. .. (3) [1912]
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MEETINGS OF SOCIETIES.

Bristol Medico-Chirurgical Society.

A Clinical Meeting of this Society was held at the University of Bristol on April 14th.

Dr. D. A. ALEXANDER showed a case of Myxœdema; also a case of Tetany in a boy of 18, with defective physical development and a rather full thyroid gland. Dr. J. M. FORTESCUE-BRICKDALE showed a boy of 19 with very defective development, probably due to pancreatic insufficiency. Dr. J. R. CHARLES showed a case of Myelogenous Leukæmia with symptoms indicative of a lesion of the labyrinth on both sides, coming on simultaneously and acutely. Mr. HUBERT CHITTY showed a child with an inclusion dermoid of the scalp, and another patient with a lymphangioma of the cheek, under treatment by electrolysis through the mucous membrane. Dr. RICHARD CLARKE brought a specimen of pituitary tumour; the chief symptoms had been acromegaly, optic neuritis, and diminished glucose tolerance. Mr. J. P. I. HARTY and Dr. F. J. A. MAYES showed a case of Epithelioma of Tonsil, Palate, etc., undergoing treatment by diathermy and injections of copper alanin with promising results. Mr. CLIFFORD MOORE showed a boy with Schlatter's disease (bilateral). Dr. J. A. NIXON showed a child with morbus cordis and congenital syphilis; a man with steatorrhœa following gastro-enterostomy (possibly due to implication of the pancreas in the base of a gastric ulcer); and a youth convalescent from illness presenting affinities with toxic polyneuritis and also with encephalitis lethargica. Dr. GEORGE PARKER brought a number of children with infantile diplegia, to whom thyroid extract was being given with benefit; also cases illustrating paralysis of the serratus magnus and of the trapezius; and a man with a lesion of the external cutaneous and genitocrural nerves associated with an operation for inguinal hernia. Mr. RENDLE SHORT showed two patients doing well after Albee's operation for tuberculosis of the spine, and a specimen of malignant papilloma of the renal pelvis removed by operation. Dr. J. O. SYMES showed two patients exhibiting an indurative erythema of the skin over the calves of the leg. Dr. WATSON-WILLIAMS showed a patient from whom he had removed a large polypus of the sphenoidal sinus (the polypus also was shown). Dr. CECIL WILLIAMS showed a

case of œdema of both eyelids in a boy whose mother had been similarly affected after eating oranges; there was reason to regard the boy's vision as the outcome of a similar "toxic idiopathy." Mr. C. FERRIER WALTERS showed two patients with Exophthalmic Goitre who had been relieved by the Dunhill operation. Dr. KENNETH WILLS showed patients cured by a single dose of X-rays, of (1) rodent ulcer of three years' standing, (2) lupus erythematosus discoides; also a man with a syphilitic tumour of the maxilla, undergoing successful treatment with novarseno benzol; and a severe and intractable case of dermatitis herpetiformis. Mr. DUNCAN WOOD showed four ex-service patients, in whom persistent traumatic bony defects had been closed by grafts of living tissue—muscle in three cases and bone in one. Mr. A. J. WRIGHT showed a man with Cicatricial Stenosis of the Larynx following a gun-shot wound, in whom laryngotomy had been performed, to be followed later by a plastic operation for closure by a cartilaginous graft.

Local Medical Notes.

University of Bristol.—Students of the University have recently passed the following examinations:—

UNIVERSITY OF BRISTOL DIPLOMA OF DENTAL SURGERY.—*Third Examination:* N. H. Bodenham, K. G. Hyland.

F.R.C.S. ENG.—*Primary Examination:* A. W. Fawcett, J. W. Gilbert, E. Watson-Williams.

M.B., B.S. LOND.—*Third Examination:* J. A. Birrell.

CONJOINT EXAMINING BOARD OF ENGLAND.—*Medicine:* M. A. Distaso, H. V. Jackson. *Midwifery:* H. V. Jackson.

L.D.S., R.C.S. ENG.—*Final Examination:* W. G. Milton, L. H. Buchan.